

A. REMARKS

Claims 1-4, 6-9, 20 and 21 remain pending. Claims 22 and 23 are added by this response.

Claim 1 is amended to more distinctly describe the subject matter of applicant's invention. No new matter is added by these amendments.

B. Rejections under 35 U.S.C. 103

Claims 1-4, 6-9 and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Helble et al. (US 5,358,695) and Bickmore et al. (US 5,984,997) in view of CRC Handbook and in view of Pirzada et al. (US 5,788,738). For matter of record, the applicants note that both '997 and '738 are commonly owned and have a common inventor with the instant specification.

The amendment to claim 1 more distinctly describes and limits the scope of the claim in view of the cited references. The amendment is fully supported on page 16, lines 20-31 of the specification. Helble et al. in '695 neither teach nor anticipate the benefits of processing fluid precursors in a flow reactor system such that the axial velocity, axial length and axial dispersion coefficient in the flow reactor system yield a plug flow index of more than 50. In fact, '695 teaches away from these principles as is amply outlined at least in column 5, lines 24 through lines 50 and again in column 7, lines 39-41 (Example 1 of '695). More specifically, '695 teaches the need for convective flow and diffusion into the bath gas, and the use of laminar flow for the process taught therein.

In contrast, in the claimed invention, higher axial velocities are favored (see, for example, the last paragraph of page 16 and first paragraph on page 17). It is well known in the art that higher velocities favor turbulent and plug flows and disfavors convective, laminar and diffusion flow (see for example page 5-6, Perry's Chemical Engineers' Handbook, 6th Edition, Robert Perry and Don Green, McGraw Hill, NY).

Neither the Bickmore nor Pirzada references teach the improvements enabled with the principle of plug flow index as disclosed and claimed herein. Accordingly,

the combination of Helbe with Bickmore and/or Pirzada does not render the present invention obvious.

Claims 2-4 and 6-9 and 21 that depend from claim 1 are believed to be allowable for at least the same reasons as claim 1.

Claim 20 was rejected under 35 U.S.C. 103(a) as being unpatentable over Helble et al. and Bickmore et al. in view of CRC Handbook and in view of Pirzada et al. and further in view of Marsh et al. Claim 20 depends from claim 1 and is believed to be allowable over the combination of Helble, Bickmore, the CRC Handbook, and Pirzada for at least the same reasons as claim 1. Marsh et al. do not supply the deficiencies noted above with respect to the primary references. Specifically, Marsh et al. do not teach the principle of plug flow index and so do not render any aspects of the claimed invention obvious alone or in combination with '695 or '997.

C. Double Patenting Rejection

An executed terminal disclaimer is attached to overcome the non-statutory double patenting rejection raised in the Office Action.

D. Conclusion

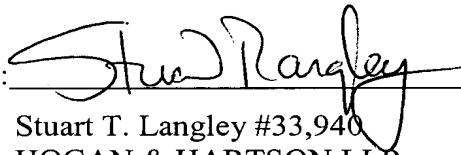
In view of all of the above, claims 1-4, 6-9 and 20-23 are believed to be allowable and the case in condition for allowance which action is respectfully requested. The references that were cited and not relied upon are believed to be no more pertinent than those references that were relied upon.

No fee is believed to be required by this response as determined on the accompanying transmittal letter. Should any other fee be required, please charge Deposit 50-1123. Should any extension of time be required please consider this a petition therefore and charge the required fee to Deposit Account 50-1123.

Respectfully submitted,

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